Work Orde July-11-12 3:07		79		*877	779*							Page 1
Item ID: Revision ID: Item Name:	D3912-041 Eyebolt Receiver	Assembly		Accept	*N900040				Setup	Start Stop	*N:	S1*
Start Date: 11/07/2012 Start Qty: 4.00 Required Date: 30/07/2012 Req'd Qty: 4.00 Reference: Approvals: Process Plan:		*4* *4*		Cust Item ID: Customer:					•	*NS2*		
		MLJ	Date: N 57	↓\ Tooling: SPC (Y/N):	Date:			F		Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center ID) D	peration escription		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp
Draw Nbr	Revision	on Nbr										
D3912	В											امر
*100 *100* Packaging Packaging	Pi	ick Kit Memo		0.00				41				S
*110 *110*				0.00				4x			<i>r</i>	
Small Fab Small Fab		Memo I-Assemble TRIM RIVE	D3912-1/-3/-5 and insta TS 1.250" LONG	0.00 Il rivets as per dwg								
		2- Install hel	ical, spring plunger and	spring pin lanyard assy as p	er dwg					•		
*120	QO	C5- Inspect part comple	eteness to step on W/O	0.00	AS							
QC		Memo		0.00								

Quality Control

NCR:	Yes	/ No				WORK ORDER NON-O	100	NFORM	MANCE / UPD	ATE			
											QA Closed:	Date:	
Work Ord	er.					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
WORK OTC						Rework		Skid-tube	Crosstube		Water Jet	Engineering	
Part I	No.					Scrap	1	l	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•					Use-as-is	1	Therm	noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR No.				Work Order Update			Large Fab	Composite		Supplier			
Root					Descri	ption of work order update	Π	Initial	Actio	on	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Descrip	otion	Date	Verification	QC Inspector
Doc/Data	Ш				•								
Equip/Tooling	Ш												
Operator	Щ												
Material	Ш								:				
Setup	Ш												
Other	Щ												
Process	Щ								·				
Supplier	Ш												
Training	Ш												·
Unapproved										<u> </u>			
							AUL	T CATE	GORY				
Landi					_	General		1			1		7
	_	Bending			<u> </u>	Bend		Grain			Ovalized		Pressure/Forced
	Ш	Centre No	t Concer	tric to	o/s	BOM/Route		Hardwa	re	<u> </u>	Over/Under	tolerance	Temperature/Cure
	\vdash	Cracks			<u> </u>	Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	-	Crushed/0	Crimped.			Burrs		-1	ions Incomplete/Ur	nclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Ш	Cuffs				Contamination		Mainte	nance		Part Moved	•	
	Ш	Heat Trea	t		L	Countersink		Mislabe	led		Positioned V	Vrong	-
	Ш	Inspection	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/	Surge	Other
	Ripples in Bend					Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord July-11-12 3:02		779		*877					Page 2			
Item ID: Revision ID: Item Name:	D3912-041 Eyebolt Recei	ver Assembly		Accept	*N900040100* Setup Star						I VI ,	S1* S2*
Start Date: Required Date: Reference:	11/07/2012 30/07/2012	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:						
Approvals:	pprovals: Process Plan:QC:			Tooling: SPC (Y/N):	Date:Date:				Run	Start Stop	· " V	R1* R2*
Sequence ID/ Work Center II 170 *170* Packaging Packaging)	Operation Description Identify as per dwg & Sto	ock Location: <u>5707</u> 2	Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp <u>13-01-15</u>

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

180

180

Quality Control

13-01-13

MUS 13-01-15

NCR:	Yes	/ No				WORK ORDER NON-C	O	NFORM	AANCE / UPDA	ATE	•				
											QA Closed:	Date:			
Work Ord	or.					DISPOSITION		AGAINST DEPARTMENT/PROCESS							
WOIK OIG						Rework	1		Skid-tube	Crosstube		Water Jet	Engineering		
Part I	No.					Scrap	1	•	Machining	Small Fab	Pro	d. Eng. Coor.	Quality		
	_					Use-as-is			noforming	Finishing		re/Packaging	Other		
NCR No.						Composite		Supplier							
Root					Descri	ption of work order update		nitial	Actio	n	Sign &				
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descrip	tion	Date	Verification	QC Inspector		
Doc/Data	Ш														
Equip/Tooling	Ш									:					
Operator															
Material															
Setup	Ш														
Other	Ш														
Process	Ш														
Supplier	Ш							į			; :				
Training	Ш														
Unapproved							<u> </u>								
							AUL	T CATE	GORY						
Landi			-		_	General	_				Ī		7		
	L	Bending				Bend		Grain			Ovalized		Pressure/Forced		
	Щ	Centre No	t Concer	ntric to	D/S	BOM/Route	<u></u>	Hardwa	re		Over/Under	tolerance	Temperature/Cure		
	Щ	Cracks				Broken/Damaged		Inspecti	on Incomplete	ļ	Part Incorre	ct	Weld		
	\vdash	Crushed/0	Crimped.			Burrs	_	4	ions Incomplete/Un	ıclear	Part Lost/Mi	issing	Wrong Stock Pulled		
	Ш	Cuffs				Contamination		Mainte	nance		Part Moved				
I	۲	leat Trea	t			Countersink		Mislabe	led		Positioned V	Vrong	_		
		nspection	n Strip in	Tube		Cut Too Short		Misread	I		Power Loss/	Surge	Other		
	Ripples in Bend					Drill Holes		Offset							

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

July-11-12 3:08:03 PM

Work Order ID: 87779

87779

Parent Item:

D3912-041

D3912-041

Parent Item Name: Eyebolt Receiver Assembly

Start Date: 11/07/2012

Required Date: 30/07/2012

Page 1

Start Oty: 4.00

Required Otv: 4.00

Comments:

IPP RevA: new issue DD 09.11.18 verified by:EC

IPP Rev·B

10.06.10 memo in seq110 ***IF PLUNGER GOES IN TO DEEP, INSTALL A WASHER (AN960C516L) IF NECESSARY BETWEEN PLUNGER AND

D3912-1. YOU MAY HAVE TO ENLARGE WASHER HOLE FOR IT TO FIT*** DD verf:JLM IPP REV:C AS PER REV B 10-08-05 JLM

VERIFIED:DD

	DRII ILD.DD													
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	_
NAS1149C0663R		Purchased	No				Each	153.0000		4	21			-
***********	00000	- 4												

NAS1149C0663R

Washer

Location	Loc Oty	Loc Code
ST297	153	
116893	153	

100

D3912-1

Manufactured No

Manufactured

9.0000 Each **

**

D3912-1

Eyebolt

Location	Loc Qty	Loc Code
FG091	-12	
69593	0	
ST070	9	
77073	2	
86020	7	
ST091	12	
	100 Each	21.0000

D3912-3

Eyebolt Block

Location	Loc Oty	Loc Code
ST070	21	
85755	1	
86514	20	

											DQA:	Date:			
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFORM	MANCE / UP	DATE					
											QA Closed:	Date:			
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT/PROCESS				
Part I	Part No					Scrap Machining Superior Super			Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	l. Eng. Coor. Quality e/Packaging Other			
Root					Descri	ption of work order update		nitial	Ac	tion	Sign &				
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector		
Doc/Data															
Equip/Tooling Operator															
Material															
Setup	Ш	•											1		
Other	Щ			·											
Process											!				
Supplier	Ш														
Training	Ш														
Unapproved				<u> </u>	<u> </u>	· · · · · · · · · · · · · · · · · · ·	<u>l</u>								
							AUL	T CATE	GORY						
Landi		Ì			_	General	_	1		_	7		٦		
	-	Bending				Bend	lacksquare	Grain			Ovalized	<u> </u>	Pressure/Forced		
	Щ	Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	•	L	Over/Under		Temperature/Cure		
	-	Cracks				Broken/Damaged		4	ion 1ncomplete		Part Incorre		Weld		
	Ш	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	'Unclear	Part Lost/M	issing	Wrong Stock Pulled		
		Cuffs				Contamination		Mainte	nance		Part Moved				
		Heat Trea	it .			Countersink		Mislabe	:led		Positioned \	Vrong	-		
		Inspection Strip in Tube				Cut Too Short		Misread	į.		Power Loss	'Surge	Other		

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Shop Packet Print

Page 2

July-11-12 3:08:03 PM

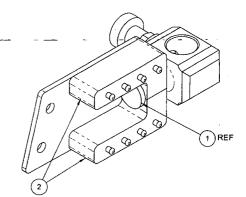
NCR:	(Yes) /	No

WORK ORDER NON-CONFORMANCE / UPDATE

1 0	Хър
DQA: XIA Date:	13/1/17
) 	

										QA Closed:	/ Date:/	(_		
Work Orde	r:	777	-9		DISPOSITION		AGAINST DEPARTMENT/PROCESS								
Part No. <u>D 3912-0-U</u> NCR No. <u>13-2223</u>				Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Water Jet Engineering Prod. Eng. Coor. Quality Rec/Store/Packaging Other Supplier						
Root				Descri	ption of work order update		nitial	Act	tion	Sign &			•		
Cause	Date	Step	Qty	,	or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector			
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved	13-1-14	# KD	4	Cut	or Non-conformance		BBUR	1.11 20.	, advitaj	3014	55 13-14	5 10/14 042042	_		
						FAUL	T CATE	GORY /	<u>/</u>	 			_		
Landir	ng Gear				General	_	i		r	1		1			
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence			Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish		Instruct Mainte Mislabe Misread Offset Out of S	ion Incomplete cions Incomplete/lenance eled d Calibration Sequence	Unclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong Surge	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other				
ļ	Wave/Tw	Wave/Twist in Tube Folio				ł	Outside Dimensions								

ITEM	-041	P/N	DESCRIPTION	
	Х	D3912-041	EYEBOLT RECEIVER ASSY	
1	1	D3912-1	EYEBOLT	_
2	2	D3912-3	EYEBOLT BLOCK	
3	2	D3912-5	EYEBOLT PLATE	
4	1	D3801-1	SPRING PLUNGER	
5	- 8	MS20615-4M20	RIVET	
6	1	MS21209-F615	HELICAL	_
7	1	NAS1149F0332P	WASHER	



SUPPLEMENTAL ISO VIEW (EYEBOLT PLATE REMOVED TO SHOW INTERIOR FEATURES)

5) 8X B

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER 9 MLJ

12/09/11

D3912-041 EYEBOLT RECEIVER ASSY

Α

С

NOTES: 1) MATERIAL: N/A 2) FINISH: NONE

2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: IDENTIFY WITH DART P/N D3912-041 USING
FINE POINT PERMANENT INK MARKER

7) WEIGHT -041: 1.58 lbs

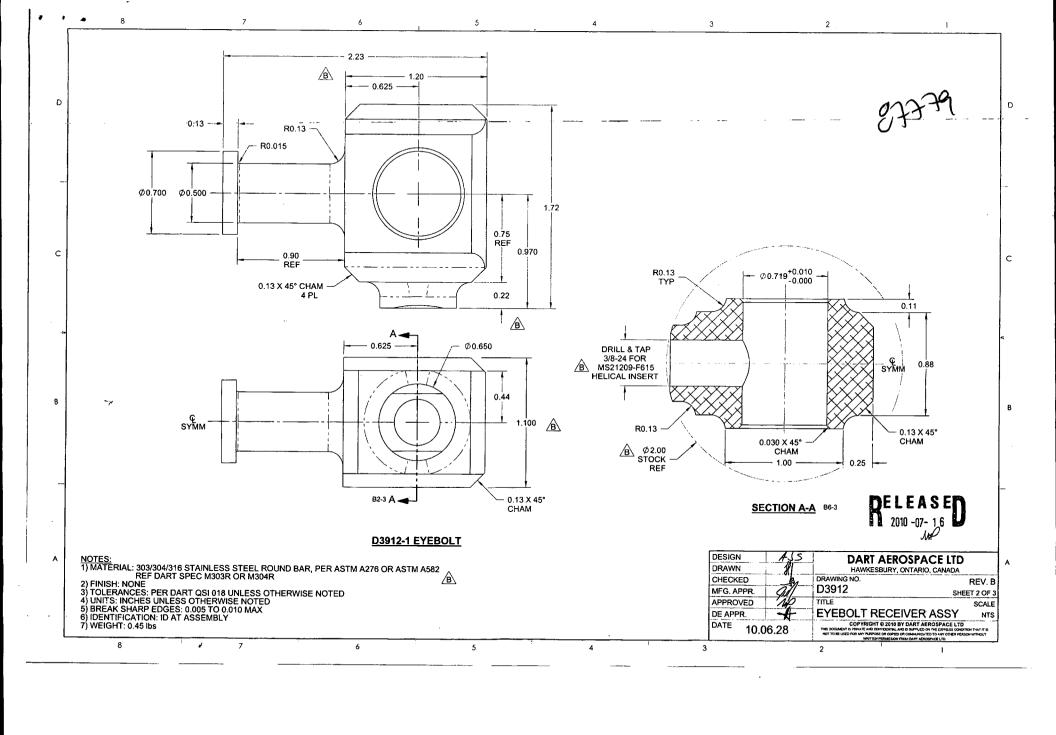
D3801-1 WAS D3810-1 SPRING PLUNGER; D4028-041 RMV; MS21209-F615 WAS MS21209-C610 HELICAL; (1) WASHER NAS1149C0663R ADDED; BOSS ADDED TO D3912-1. 10.06.28 NEW ISSUE Α 10.03.04 REV. DESCRIPTION DATE DESIGN

DART AERÓSPACE LTD DRAWN HAWKESBURY, ONTARIO, CANADA CHECKED DRAWING NO. REV. B D3912 MFG. APPR. SHEET 1 OF 3 APPROVED TITLE SCALE EYEBOLT RECEIVER ASSY DE APPR. NTS

DATE 10.06.28 COPYRIGHT © 2010 BY DART AEROSPACE LTD

NCR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date:								
Work Order:	DISPOSITION		AGAINST DEPARTMENT/I	PROCESS					
	Rework	Skid-tube C	rosstube	Water let Engineering					

Work Orde	er:					DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part N	-					Rework Scrap		1	Skid-tube Machining	Crosstube Small Fab		Water Jet d. Eng. Coor.	Engineering Quality	
NCR N	NCR No.					Use-as-is Work Order Update		Thermoforming Finishir Large Fab Composit			Rec/Stor	re/Packaging Supplier	Other	
Root					Descri	ption of work order update	ı	nitial	Action		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector	
Doc/Data														
Equip/Tooling	_												Ì	
Operator	_													
Material														
Setup	_													
Other	_		:											
Process	_													
Supplier	\dashv													
Training	\dashv		į '											
Unapproved				<u> </u>	<u> </u>	T.		T CATE	CORY	· · · · · · · · · · · · · · · · · · ·	<u> </u>			
Landi	na 6					General	AUL	I CATE	GURY					
Lanun		Bending				Bend		Grain			Ovalized	Г	Pressure/Forced	
	-	Centre No	nt Concer	atric to		BOM/Route		Hardwa	ro		Ovanzeo Over/Under	toloranco	Temperature/Cure	
		Cracks	CONCE	iti it to	°′3 ⊢	Broken/Damaged	\vdash	ł	ion Incomplete		Part Incorre	-	Weld	
	-	Crushed/0	^rimned			Burrs	\vdash	1	ions Incomplete/	l Inclear	Part Lost/M	 -	Wrong Stock Pulled	
	-	Cuffs	ermpea.			Contamination	H	Mainte	=	Officical	Part Moved			
	-	Heat Trea	t			Countersink	-	Mislabe			Positioned V			
	-	Inspection		Tube	<u> </u>	Cut Too Short	⊢	Misread			Power Loss/		Other	
	$\overline{}$	Ripples in	•		-	Drill Holes		Offset		<u> </u>	1		15	
		Torque W		xtrusio	n	Drawing		1	Calibration					
	\blacksquare	Turning Se				Finish		4	Sequence					
		Wave/Twi	-	e		Folio		1	Dimensions					



											DC	QA:	Date	;
NCR:	Yes	/ No				WORK ORDER NON-O	COI	VFORN	AANCE / UPD	ATE				
											QA Clos	ed:	Date	•
Work Orde	er.					DISPOSITION				AGAINST DE	PARTME	NT/P	ROCESS	
Work Order.						Rework Skid-tube Crosstube					1		Water Jet	Engineering
Part I	No.					Scrap	1		Machining	Small Fab	Prod. Eng. Coor.			Quality
	-					Use-as-is		noforming	Finishing	Rec/S	Store	/Packaging	Other	
NCR 1	No.			 		Work Order Update]		Large Fab	Composite]		Supplier	
Root					Descri	ption of work order update		Initial	Acti	ion	Sign 8	4		
Cause		Date	Step	Qty	·	or Non-conformance	Ch	nief Eng	Descri	iption	Date		Verification	QC Inspector
Doc/Data	Ш													
Equip/Tooling	Ш													
Operator	Ш													
Material	Ш													
Setup	Ш										1			
Other								i						
Process														
Supplier														
Training			ł											
Unapproved											1			
						F	AUI	T CATE	GORY					
Landi	ng G	iear				General		_			_			
	Ш	Bending				Bend		Grain			Ovalized			Pressure/Forced
	Ш	Centre Not Concentric to O/S BOM/Route						Hardwa	re		Over/Un	der to	olerance	Temperature/Cure
		Cracks Broken/Damaged						Inspecti	on Incomplete		Part Inco	orrect		Weld
		Crushed/	Crimped,			Burrs		Instructi	ions Incomplete/U	Inclear	Part Lost	t/Miss	sing	Wrong Stock Pulled
		Cuffs				Contamination] Mainte	nance		Part Mo	ved		
		Heat Trea	it			Countersink		Mislabe	led		Position	ed Wr	ong	
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	I		Power L	oss/Su	urge	Other
		Ripples in Bend Drill Holes									_			

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

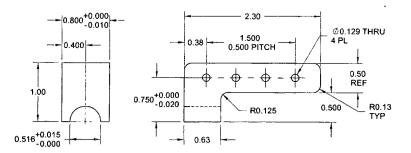
Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

С



D3912-3 EYEBOLT BLOCK

- 3.15 1.500 0.500 PITCH 10.375 R0.13 TYP 0.38 0.25 0.517 1.000 1.500 +0.020 105° REF Ø0.129 Ø0.257 8 PL 2 PL 3.65 3.69 REF

D3912-5 EYEBOLT PLATE

REV. B

SHEET 3 OF 3

2.00

0.125

REF

NOTES: 1) MATERIAL -3: 303/304/316 STAINLESS STEEL BAR, PER ASTM A276 REF DART SPEC M303B OR M304B
-5: 303/304/316 STAINLESS STEEL SHEET ANNEALED 2B, 0.125 THK PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME 5A24

40 REF DART SPEC M303S11GA OR M304S11GA

D

C

2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX 6) IDENTIFICATION: ID AT ASSEMBLY

7) WEIGHT -3: 0.30 lbs -5: 0.24 lbs

8

DESIGN	DART AEROSPACE	TD
DRAWN	HAWKESBURY, ONTARIO, CANA	
CHECKED	RAWING NO.	1
MFG. APPR.	03912	SHEE

MFG. APPR. TITLE APPROVED DE APPR. DATE

SCALE EYEBOLT RECEIVER ASSY NTS COPYRIGHT @ 2010 BY DART AEROSPACE LTD

10.06.28

												DQA:	Da	ate:		
NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE															
									_			QA Closed:	Da	ate:		
Work Orde	er:					DISPOSITION AGAINST DE					ΕΙ	PARTMENT/PROCESS				
Part No. NCR No.						Rework Scrap Use-as-is Work Order Update	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Small Fab Finishing	Prod. Eng. Coor Rec/Store/Packaging				Engineering Quality Other	
Root					Descri	ption of work order update	1	nitial	Acti	ion		Sign &				
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	iption		Date	Verification	n	QC Inspector	
Doc/Data						,									•	
Equip/Tooling																
Operator																
Material														Ì		
Setup																
Other												:				
Process																
Supplier																
Training									·							
Unapproved																
						F	AUL	T CATE	GORY							
Landi	ng (Gear				General		_						_	_	
	Bending Bend					Bend		Grain				Ovalized			Pressure/Forced	
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance		Temperature/Cure	
		Cracks				Broken/Damaged		Inspecti	on Incomplete			Part Incorre	ct		Weld	
		Crushed/0	Crimped.			Burrs		Instruct	ions Incomplete/L	Inclear		Part Lost/Mi	ssing		Wrong Stock Pulled	
		Cuffs				Contamination	Г	Mainte	enance			Part Moved			-	
		Heat Trea	it			Countersink		Mislabeled				Positioned V				
		Inspection Strip in Tube Cut Too Short						Misread	d		Power Loss/	Surge		Other		

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish